FOOD SCIENCE RESOURCES FOR HIGH SCHOOL TEACHERS

Go to www.ift.org and click on the left sidebar "Education," then "Teacher Resources."

Teacher Resources

Whether you're a teacher looking for class materials or a student interested in looking behind the scenes at how food is developed and processed, check out the resources below.

What is food science and technology?

Self-Study | Experiments | Media Resources | Additional Resources | Find a Food Scientist

Self-Study

Introduction to the Food Industry

A food science self-study program for grades 9-12, free for teachers and students. Eight study modules focus on topics related to all aspects of food science.

Food Science Experiments

Use food to help teach science! The following experiments are designed for use in middle and senior high school science classes.

Experiments have been grouped for chemistry and biology classes. They include teacher and student information and activity guides, sample data tables, and, where appropriate, visual masters for copying.

(Experiments and handouts are pdfs and require Adobe Reader.)

Chemistry

Food Chemistry encompasses the composition and properties of food components and the chemical changes they undergo during handling, processing and storage.

Food science in chemistry deals with:

- **Food Constituents** -- the chemicals of food, such as Carbohydrates, Fats, Proteins, and Vitamins
- **Nutritional Value of Food** -- food labeling and medical concerns
- **Biochemistry and Food** -- enzymes

Related Experiments:

Food Chemistry Experiments

These experiments examine carbohydrates, lipids, and proteins. This series can be used along with the Pizza Explorer online program.

Enzymes in Food Systems Experiments

Three food science experiments covering catalase activity, changes in plant pigments, and enzymatic browning of apples.

The Mini Experiments in Food Science Series

Three mini experiments demonstrate how color and appearance can affect the perception of quality in food products.

Pointed experiments, short preparation time and quick lab demonstrations make these experiments very student friendly.

Biology

Food science in biology deals with:

- **Botany** -- the plant tissues we eat
- **Zoology** -- the animal tissues we eat
- **Physiology** -- the changes that occur in the plant and animal tissues we eat
- **Microbiology** -- food spoilage, foodborne illness, and fermentation
- **Biotechnology and Food**

Related Experiments:

Microbiology in Food Systems Experiments
Four food science experiments related to microbiology and fermentation.

Experiments in Food Science
These seven experiments examine various aspects of food science, from molds to potato chips.

Video and Media Resources

The Great Food Fight
This 13-minute online video presents food safety information to all ages.

From Concept to Consumer: Food Product Development
A 20-minute online video about developing and marketing a new food product.

Pizza Explorer
Learn the history and food chemistry of pizza.

Two Forks Idaho
Solve the mystery of foodborne illness! A whodunnit for food safety.
(An Access Excellence Science Mystery, sponsored by IFT)

Additional Food Science Teaching Resources

Find a Food Scientist
Contact a food scientist in your area to find out more about food science and to schedule a class visit.

Journal of Food Science Education
This online journal provides information on current innovations, trends, and issues surrounding food science and technology education.

www.fightbac.org
A variety of resources to support Fight BAC!. From the Partnership for Food Safety Education.

www.foodsafety.gov
Food safety information from the U.S. government.